Attorney Docket No. 04853.0055-00

Application No. 09/758,317

AMENDMENTS TO THE CLAIMS:

Please amend claims 11 and 16 and cancel claims 27 and 28 without prejudice or disclaimer, as shown in the following list of claims:

1-10. (Canceled)

- 11. (Currently Amended) An immobilized *Euphorbiaceae*, *Poaceae*, or *Olacaceae* enzyme comprising (S)-hydroxynitrile lyase enzyme derived from *Euphorbiaceae*, *Poaceae*, or *Olacaceae* adsorbed on a carrier comprising a porous inorganic material.
- 12. (Previously Presented) The immobilized enzyme according to claim 11, wherein said carrier comprising a porous inorganic material is selected from a sintered clay carrier, a silica carrier, an alumina carrier and a silica alumina carrier.
- 13. (Previously Presented) The immobilized enzyme according to claim 11 or 12, wherein said carrier comprising a porous inorganic material has a pore size of 10-80 nm.

14-15. (Canceled)

16. (Currently Amended) A method for producing an immobilized enzyme, comprising adsorbing an *Euphorbiaceae*, *Poaceae*, or *Olacaceae* (S)-hydroxynitrile

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docket No. 04853.0055-00

Application No. 09/758,317

lyase <u>enzyme</u> derived from *Euphorbiaceae*, *Poaceae*, or *Olacaceae* on a carrier comprising a porous inorganic material.

- 17. (Previously Presented) The method for producing an immobilized enzyme according to claim 16, wherein said carrier comprising a porous inorganic material is selected from a sintered clay carrier, a silica carrier, an alumina carrier and a silica alumina carrier.
- 18. (Previously Presented) The method for producing an immobilized enzyme according to claim 16 or 17, wherein said carrier comprising a porous inorganic material has a pore size of 10-80 nm.

19-20. (Canceled)

- 21. (Withdrawn) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 11 or 12 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.
- 22. (Withdrawn) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 13 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Attorney Docket No. 04853.0055-00

Application No. 09/758,317

23-24. (Canceled)

25. (Withdrawn) The method for producing an optically active cyanohydrin according to claim 21, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.

26. (Withdrawn) The method for producing an optically active cyanohydrin according to claim 22, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.

27-28. (Canceled)

- 29. (Previously Presented) The immobilized enzyme according to claim 11 or 12, wherein said carrier comprising a porous inorganic material has a pore size of 10-60 nm.
- 30. (Previously Presented) The immobilized enzyme according to claim 11 or 12, wherein the surface area of the porous inorganic material is more than 20 m²/g.
- 31. (Previously Presented) The immobilized enzyme according to claim 11 or 12, wherein the pH at the time of enzyme adsorption is between 4.83 and 6.79.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Application No. 09/758,317

Attorney Docket No. 04853.0055-00

32. (Previously Presented) The method for producing an immobilized enzyme according to claim 16 or 17, wherein said carrier comprising a porous inorganic material has a pore size of 10-60 nm.

- 33. (Previously Presented) The method for producing an immobilized enzyme according to claim 16 or 17, wherein the surface area of the porous inorganic material is more than $20\ m^2/g$.
- 34. (Previously Presented) The method for producing an immobilized enzyme according to claim 16 or 17, wherein the pH at the time of enzyme adsorption is between 4.83 and 6.79.
- 35. (Withdrawn) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 29 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.
- 36. (Withdrawn) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 30 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-soluble or water-insoluble organic solvent.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER LLP

Application No. 09/758,317

soluble or water-insoluble organic solvent.

Attorney Docket No. 04853.0055-00

37. (Withdrawn) A method for producing optically active cyanohydrin, comprising bringing the immobilized enzyme according to claim 31 into contact with a carbonyl compound and a cyanogen compound in the presence of a slightly water-

38. (Withdrawn) The method for producing an optically active cyanohydrin according to claim 35, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.

- 39. (Withdrawn) The method for producing an optically active cyanohydrin according to claim 36, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.
- 40. (Withdrawn) The method for producing an optically active cyanohydrin according to claim 37, wherein said immobilized enzyme is collected to be reused from a reaction mixture after the completion of a reaction for producing an optically active cyanohydrin.

FINNEGAN HENDERSON FARABOW GARRETT & DUNNER